

REMARKS / DISCUSSION OF ISSUES

The present amendment is submitted in response to the Office Action mailed June 21, 2010. Claims 1-21 remain in this application. Claim 1 has been amended to comply with U.S. patent prosecution practice. In view of the remarks to follow, reconsideration and allowance of this application are respectfully requested.

The Invention

It is instructive to briefly review the invention before addressing the substantive rejections. The present invention is directed to recording multiple sets of data into the available space of a recording medium. This is achieved in accordance with invention principles by determining the available recording space on a data carrier for all unrecorded sets of data of a timed recording sequence to be recorded on the data carrier. In accordance with a method embodiment, after a user inserts a disc into a disc controlling unit, the user programs a first, second and third program timer with program information related to recording three different programs. Three programs are used for ease of explanation. A recording unit can deduce the length of each program to be recorded from the start and end time of each program to be recorded. The control unit can then calculate a "total recording length" based on the programmed settings. Next, the control unit sets a recording quality or bit-rate for all of the three unrecorded programs to allow all three programs to fit on the available area of the disc. The recording quality is set as high as possible. Thereafter, the control unit orders the recording of the first of the programs to be recorded. The first program is recorded based on the settings in the first program timer. Next, the control unit checks if there are more unrecorded programs in the timed recording sequence. If there are more unrecorded programs, the control unit determines the available recording space on the disc and sets the recording quality once again in order to fit the remaining programs on the disc. The recording quality may be different from the first one used. The second program is recorded based on the settings in the second program timer with the new recording quality. In this manner, the control unit continues to check for available recording space and changes the quality of the recording in order to fit programs into the available recording space until all the programs in the sequence have been recorded. In this example, until a program according to

the third program timer has been recorded.

Rejection Under 35 U.S.C. §101

Claims 11-21 stand rejected under 35 U.S.C. §101 as being allegedly directed to non-statutory subject matter.

As per claim 1, the rejection is understood to be based on the premise that claim recites, inter alia, "A computer readable storage medium...". Applicant respectfully points out that the rejection is apparently in error. None of the claims 11-21 recite "A computer readable storage medium...", as suggested in the rejection. Accordingly, withdrawal of the rejection is respectfully requested.

Claim Rejections under 35 USC 102

In the Office Action, Claims 1-21 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Application No. 2002/0012530 ("Bruls"). Applicants respectfully traverse the rejections.

Claims 1-21 are allowable

The cited portions of Bruls do not anticipate claim 1, because the cited portions of Bruls do not teach every element of claim 1. For example, the cited portions of Bruls do not disclose or suggest, "reading program information regarding **at least two different sets of data to be recorded on the at least one data carrier** in a timed recording sequence, which information comprises the length of time used by each set of data when being played", as claimed in claim 1. Because Bruls does not disclose or suggest the afore-mentioned step of reading program information, it therefore follows that Bruls cannot teach the following steps of claim 1, where each step refers to multiple sets of data in some way (e.g., "all sets of data", "all unrecorded sets of data", "each set of unrecorded data").

Thus, the cited portions of Brul also do not disclose or suggest:

"calculating the recording length of **all sets of data**"

“determining the available recording space on the at least one data carrier **for all unrecorded sets of data** of the timed recording sequence”

“setting a recording **quality for all sets of unrecorded data** in the timed recording sequence so as to enable all sets of data to be fitted to the available space,”

“recording a set of data with the set recording quality”

“repeating the steps of determining, setting and recording for each set of unrecorded data, until all sets have been recorded.”

The Examiner cites Brul at pars. 1 -5 and 10 for allegedly teaching the elements of claim 1, shown above. However, upon a close reading of the cited portions Brul, it appears that Brul does not teach recording **multiple sets of data into the available space of a recording medium**. Instead, the cited portions of Brul merely disclose an encoding device for encoding a signal, the signal representing a program of a predefined duration. Applicant submits that recording a single program of a predefined duration is not equivalent to recording multiple sets of data.

Applicant submits that Brul is directed to dynamically varying a bit-rate to record a single program of finite duration. Specifically, Brul discloses a single program of a predefined duration being converted by a compression process (encoded) into digital data with a bit rate influenced for fitting the program in a vacant data space. A remaining part of the vacant space and a remaining part of the duration are determined during the coding process. A bit-rate in Brul is attuned to the available data space to achieve a high average picture quality. A target bit-rate to be achieved is calculated from the available data space and the time to be recorded. When the actual bit-rate deviates from a target bit rate, compression settings are adjusted. It should be understood that the process of dynamically adjusting the actual bit rate to match the target bit rate is a continuous dynamic process in Brul with no regard to what portion of the program is being recorded.

The method of Brul is shown to be directed to a continuous **dynamical adjustment of a bit-rate** to record **a single program of a pre-defined duration**. In sharp contrast to Brul, Applicant's invention operates on "sets of data" whereby the bit-rate can only be adjusted after the completed recording of a particular set of data. Claim 1 recites in relevant part, "repeating the steps of determining, **setting** and recording for each set of unrecorded data, until all sets have been recorded." In other words, the step of repeating the steps of determining, **setting** (a bit-rate) and recording is only performed after the step of recording a set of data with a set recording quality.

In the Office Action, the Examiner cites par. 10 for allegedly teaching some of the elements of claim 1. Par. 10 merely discloses that the compression process is set in dependence on a program complexity of the actual program. That is, the method of Brul may consider taking into account a complex program where a first part uses more than half of the available bits, while a second part needs to be compressed heavily to fit in the remaining data space.

Based at least on the arguments present above, Applicant submits that the method of Bruls is patentably distinguishable from the invention for at least the following reasons. First, Bruls does not disclose or suggest recording multiple sets of data into the available space of a recording medium, and secondly, Bruls does not disclose or suggest performing bit-rate adjustments only at the completion of the recording of a set of data. Instead, Bruls operates on a single program and performs bit rate adjustment continuously.

Consequently, it is asserted that independent claim 1 is patentable over the cited prior art and claims 2-10 are allowable, at least by virtue of their respective dependence from claim 1.

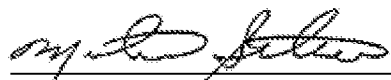
Independent Claims 11 recites similar subject matter as Independent Claim 1 and therefore contains the limitations of Claim 1. Hence, for at least the same reasons given for Claim 1, Claim 11 is believed to recite statutory subject matter under 35 USC 102(b). Claims 12-21 are allowable, at least by virtue of their respective dependence from claim 11.

Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 1-21 are believed to be in condition for allowance and patentably distinguishable over the art of record.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call Mike Belk, Esq., Intellectual Property Counsel, Philips Electronics North America, at 914-945-6000.

Respectfully submitted,



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